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| CANTOR COLBURN, LLP 55 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002 | | | DANIELS, MATTHEW J | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/613,342

Applicant(s)

CALLESEN, BENNY

Examiner

Matthew J. Daniels

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 August 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) 1-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7/2/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group II, Claims 15-30, in the reply filed on 22 August 2005 is acknowledged. The traversal is on the ground(s) that the restriction requirement is no longer valid when applied to the amended claims. This is not found persuasive because the apparatus could still be used in another and materially different process, such as for distilling liquids having different vapor pressures.

The requirement is still deemed proper and is therefore made FINAL.

Priority

2. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Europe (EPO) on 3 July 2002. It is noted, however, that applicant has not filed a certified copy of the priority application as required by 35 U.S.C. 119(b).

Information Disclosure Statement

3. The information disclosure statement filed 2 July 2003 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. In this case, FR 1,240,024 has not been considered because no copy has been provided.

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Claim Objections

4. **Claims 22, 23 and 30** are objected to because of the following informalities: The claimed subject matter should be claimed by chemical name instead of by abbreviations. The objection is made to the abbreviations. Additionally, the chemical compositions appear to be spelled incorrectly. For example “tetra flour ethylene” (Claim 30) appears to be a misspelling. Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. **Claim 28** rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The terms “small” and “big” are relative terms that do not set forth the subject matter regarded as the invention. Additionally, capabilities such as “can be assembled” and “suited” are subjective, and not distinctly claimed as to what is sought.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. **Claims 29 and 30** are rejected under 35 U.S.C. 102(b) as being anticipated by Ahrens (USPN 4323623). **As to Claim 29**, limitations drawn to intended uses have been given consideration. However, these aspects do not materially affect the claimed inner liner’s

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structure, and therefore the Examiner submits that because the structural limitations of the liner recited in the claim are met, the claim is anticipated by Ahrens. Ahrens teaches an inner liner comprising a pre-shaped (flat) flexible modified fluorinated plastic foil (5:53-59). **As to Claim 30**, Ahrens additionally teaches a laminate comprising a plurality of layers of fluoroplastic material selected from the group consisting of polytetrafluoroethylene (5:53-59).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. **Claims 15, 17-19, 22-26, and 28-30** are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson (USPN 3546740) in view of Ahrens (USPN 4323623). **As to Claim 15**, limitations drawn to the particular method are not given patentable consideration in examination of the apparatus. Johnson teaches a molding device for manufacture of products in a closed mold process (Fig. 1), comprising:

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a product moulding volume defined between a first and a second mould part, the moulding volume being in fluid contact with at least one moulding material reservoir and a vacuum source (Fig. 1, Items 46, 56, and 25),

wherein the moulding material is drawn into the moulding volume when the vacuum is applied to the moulding volume (Fig. 1, Item 25, Fig. 2); wherein the first mould part comprises an inner liner of a pre-shaped, flexible modified plastic foil (5:14-6:53) and wherein the mould parts are clamped together before the vacuum is applied (5:33-47) and detached again when the moulding volume is filled and the moulding process is over (inherent), such that the moulded composite product may be removed and the mould is ready for repeating the moulding process (inherent).

Johnson is silent to a fluorinated modified plastic foil. However, the claimed foil would have been prima facie obvious over Ahrens, who teaches a Teflon film (also known as polytetrafluoroethylene), which is interpreted to be a fluorinated and modified plastic foil, for application of pressure (5:53-6:20).

It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate the apparatus of Ahrens into that of Johnson because Johnson specifically suggests providing controlled lubricity between the diaphragm and workpiece (5:59-71 and 6:24-28) by locally incorporating into the diaphragm inserts to reduce the coefficient of friction (6:49-53), and Ahrens teaches compressing with a polytetrafluoroethylene sheet insert, which would have obviously had a coefficient of friction. **As to Claims 17 and 18**, limitations drawn to the particular method are not given patentable consideration in examination of the apparatus. Johnson's method would have obviously been desirable for a variety of materials. As

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to **Claim 19**, Johnson teaches that it is desirable to reduce the coefficient of friction between the diaphragm and molding material. In view of Johnson's teachings, it would have been prima facie obvious to provide a smooth diaphragm because this would have obviously had a lower coefficient of friction. As to **Claim 22**, Ahrens teaches a foil having a surface of polytetrafluoroethylene (3:40-54 and 5:53-6:37). The Examiner submits that the sheet of Ahrens is multilayer with polytetrafluoroethylene as the functional outer layer. Providing a plurality of layers of material would not have changed the apparatus in a way that materially changed this functional surface. Thus, the Examiner submits that the limitation to a plurality of layers would have been prima facie obvious in view of Ahrens' teachings (5:53-59 and 3:42-54). As to **Claim 23**, limitations drawn to the particular method of making the foil are not given patentable consideration in examination of the apparatus. The Examiner submits that the functional surface of polytetrafluoroethylene is still prima facie obvious over Johnson and Ahrens. As to **Claim 24**, Johnson teaches an annular airtight sealing member encompassing the moulding volume carrying the inner liner (Fig. 1, Items 42 and 31). The airtight member may belong to either part in Johnson's apparatus. As to **Claim 25**, Johnson teaches two annular sealing members defining an annular sealing volume (Fig. 1, Items 42 and 31). Johnson also teaches exhausting through the pipe (Item 48, Fig. 1). As to **Claim 26**, limitations drawn to the particular method are not given patentable consideration in examination of the apparatus. As to **Claim 28**, Johnson and Ahrens appear to be silent to the claimed limitations. However, Johnson specifically suggests altering the thickness of the diaphragm (6:19-21). Therefore, diaphragm thickness appears to be a result-effective variable which can be optimized. See MPEP 2144.05 II and *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). It would have been prima facie obvious to one of

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ordinary skill in the art at the time of the invention to optimize the diaphragm thickness in order to vary thickness in order to provide a particular contour or thickness to the part (6:3-53). As to **Claim 29**, the Examiner submits that the particular apparatus in which the liner is intended to be used does not materially affect the structure of the liner. Structural limitations directed to the apparatus as a whole, and not to the liner, are not given patentable consideration. Johnson teaches a liner, but is silent to a fluorinated plastic foil. However, Ahrens teaches a fluorinated plastic foil (5:53-6:20).

It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate the apparatus of Ahrens into that of Johnson because Johnson specifically suggests providing controlled lubricity between the diaphragm and workpiece (5:59-71 and 6:24-28) by locally incorporating into the diaphragm inserts to reduce the coefficient of friction (6:49-53), and Ahrens teaches compressing with a polytetrafluoroethylene sheet insert, which would have obviously had a coefficient of friction. As to **Claim 30**, Ahrens teaches a foil having a surface of polytetrafluoroethylene (3:40-54 and 5:53-6:37). The Examiner submits that the sheet of Ahrens is multilayer with polytetrafluoroethylene as the functional outer layer. Providing a plurality of layers of material would not have changed the apparatus in a way that materially changed this functional surface. Thus, the Examiner submits that the limitation to a plurality of layers would have been prima facie obvious in view of Ahrens' teachings (5:53-59 and 3:42-54).

8. **Claim 16** is rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson (USPN 3546740) in view of Ahrens (USPN 4323623), and further in view of Irvine (USPN 3334383).

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Johnson and Ahrens teach the subject matter of Claim 15 above under 35 USC 103(a). As to Claim 16, it is unclear if Johnson and Ahrens teach the first mold part being a female mold part and the second mold part being the male mold part. However, Irvine teaches an apparatus in which a first mold part comprises an inner liner, and serves as the female mold part (Figs. 1-3). Irvine's second part is male (Fig. 3, Item 34). It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate the apparatus of Irvine into that of Johnson and Ahrens because doing so would have avoided the thickness variations in the corners of the female mold of Johnson shown in Figs. 4 and 5.

9. **Claim 20** is rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson (USPN 3546740) in view of Ahrens (USPN 4323623), and further in view of Shepherd (USPN 5129813). Johnson and Ahrens teach the subject matter of Claim 15 above under 35 USC 103(a). As to Claim 20, Johnson and Ahrens are silent to a structured inner surface. However, Shepherd teaches this aspect (4:15-25). It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate the apparatus of Shepherd into that of Johnson and Ahrens in order to allow the bag to more easily and uniformly conform to the shape of the lay-up enclosed therein (4:54-57).

10. **Claim 21** is rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson (USPN 3546740) in view of Ahrens (USPN 4323623), and further in view of Smith (USPN 2913036). Johnson and Ahrens teach the subject matter of Claim 15 above under 35 USC 103(a). As to Claim 21, Johnson and Ahrens are silent to a translucent inner liner. However, Smith teaches a

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translucent liner (5:10-55). It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate the translucent liner of Smith into that of Johnson and Ahrens in order to provide the ability to vary the progress of the process, providing "Perfect control..." (5:48 and 5:48-53)

11. **Claim 27** is rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson (USPN 3546740) in view of Ahrens (USPN 4323623), and further in view of Renaudin (USPN 6071460). Johnson and Ahrens teach the subject matter of Claim 15 above under 35 USC 103(a). As to Claim 27, Johnson and Ahrens are silent to a pre-shaped inner liner. However, Renaudin teaches a pre-shaped inner liner (Fig. 6A, item 62). It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate the apparatus of Renaudin into that of Johnson and Ahrens because it is desirable to have a constant displacement in the diaphragm (Renaudin, 9:13-19) to produce more uniform mechanical properties across the molded product (9:27-32).

12. **Claim 30** is rejected under 35 U.S.C. 103(a) as being obvious over Ahrens (USPN 4323623). Ahrens teaches the subject matter of Claim 29 above under 35 USC 102(b). As to **Claim 30**, Ahrens additionally teaches a plurality of layers of fluoroplastic material selected from the group consisting of polytetrafluoroethylene (5:53-59). In the alternative that Ahrens' structure is not a "laminate," the Examiner submits that it would have been prima facie obvious to use one sheet comprised of Ahrens' two sheets in a bonded configuration (5:53-59) in order to avoid shifting of the films during rolling.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew J. Daniels whose telephone number is (571) 272-2450. The examiner can normally be reached on Monday - Thursday, 7:30 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianni can be reached on (571) 272-1196. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MJD 11/3/05

MJD



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